Knowledge, Attitude And Practices Of Anesthesia Providers Towards Telehealth In Rwanda.

Edmond Rusumazihazihanye[1], Kizito Nkurikiyeyezu[2], Julienne Murererehe[3]

[1]Regional Centre of Excellence in Biomedical Engineering and e-Health (CEBE), University of Rwanda, Kigali, Rwanda; [2]College of Medicine and Health Sciences (CMHS), University of Rwanda, Kigali, Rwanda,

Abstract

Objective
To assess knowledge, attitude and practices of anesthesia practitioners towards the use of telehealth in Rwanda.
Methods
Cross-sectional quantitative study conducted among anesthesia providers from Rwanda, reached out through Allied Health Professionals Council (RAHPC). Census sampling technique was. Data analysis software: SPSS version 22.
Results
The findings of this study showed that 32.95% with a low level of knowledge towards telehealth. About 42.2% of respondents have negative attitude towards telehealth. In addition, 76.88% of respondents have poor practice towards
Conclusion
There is a high level of Knowledge, Attitude and low level of practice; areas of improvement were highlighted and merit to be addressed.

Introduction

Telehealth adoption in Rwanda is progressing gradually, despite existing opportunities.

Anesthetic breakthroughs in surgical care are lacking access in low- and middle-income countries (LMICs),

Lack of anesthetic providers and supervision hinders advancements, causing a rising anesthetic issue as surgical intervention increases.

The World Health Organization conducted a survey in Rwanda, revealing serious resource constraints in 44 district hospitals. Six out of 44 had no trained anesthesia practitioners, and children were particularly affected.

One major factor in the global toll of avoidable fatalities from surgical disorders is the lack of anesthetic capability in low-income nations.

The survey revealed a lack of equipment for surgical airway treatments, especially in rural areas.

The surgical burden of disease and access to services are significantly impacted by the anesthesia crisis, with the World Health Organization highlighting premature death and disability due to inadequate resources.

Materials

The data collection procedures involved initially developing a data collection instrument using Google Forms and distributing this electronic survey to all registered anesthetists in RAHPC. Participants were provided with comprehensive instructions on how to complete the questionnaire and were presented with response options following their consent to participate in the study. The high level or low level of knowledge or positive or negative attitude are explained in data analysis. Anesthesia providers with attitude above 3 mean level were considered having positive attitude and negative for below score. For the overall knowledge level, we used the modified bloom's cutoff where high level considered at 60% and above and low level for the rate below 60%.
Significance was set at $p<0.05$ at 95%CI.

Methodology

Research Design
Quantitative cross sectional study design.

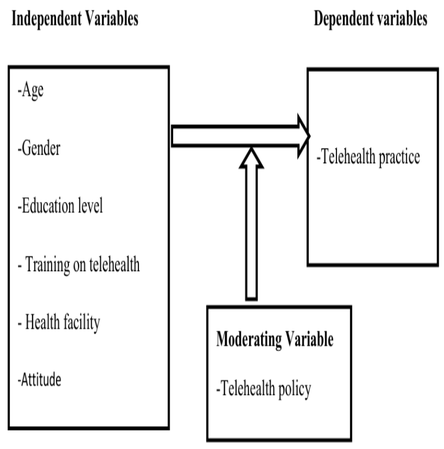
Target Population
The study population consisted of anesthesia providers from RAHPC.

Sample size
The sample size of 173 participants was used.

Sampling Technique
This study used census sampling technique.
All population taken into account to ensure generalization of results.

Data Collection Instrument
Google Form Questionnaire

Conceptual framework: Fig. 1



Source: Researcher, 2024

Figure 1. Conceptual framework

Results

Demographic characteristics of respondents

69.4% male; 48.0%, aged (e) 31-40 y.o; 48.6% are less than 5 years of experience; 74.0% work in government health facilities.

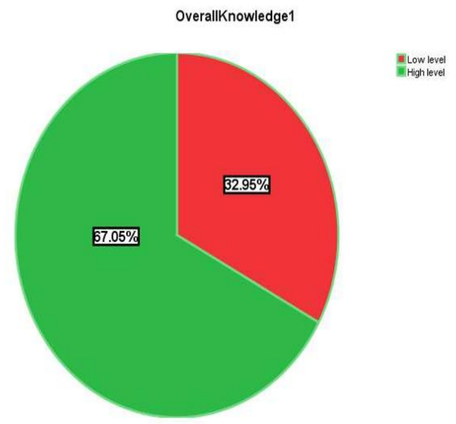


Figure 1. Overall, Knowledge

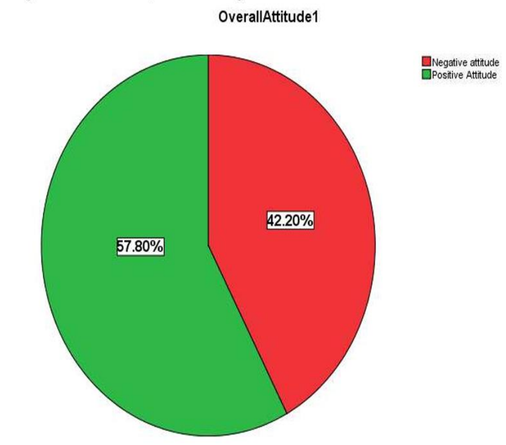


Figure 2. Overall Attitude

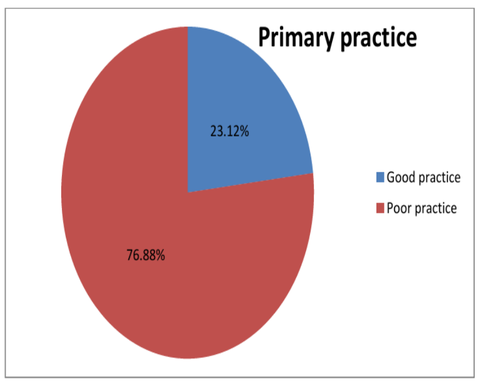


Figure 3. Primary practice of anesthesia providers towards the use of telehealth.

Factors such as Gender, age>=31, lack of training, telehealth concerns and threaten patient safety, confidentiality, and privacy and lack of awareness were significantly associated with poor practice of telehealth with $p<0.05$.

Conclusion

In conclusion, this study has revealed that majority of respondents have a high level of knowledge towards Telehealth. More than half of respondents have positive attitude towards Telehealth. About a quarter of respondents have good practice towards Telehealth. In addition, male gender, older age groups, lack of training, low knowledge about telehealth, organizational resistance, and insufficient awareness of telehealth benefits are factors that make anesthesia providers in Rwanda more likely to exhibit poor practice towards telehealth anesthesia. The findings of this study imply that while there is a generally high level of knowledge and a positive attitude towards telehealth among anesthesia providers in Rwanda, actual implementation and practice are less widespread, with only about a quarter demonstrating good practice. Key barriers to effective telehealth practice include gender disparities, age, insufficient training, low knowledge, organizational resistance, and inadequate awareness of telehealth benefits. These factors highlight the need for targeted interventions, such as enhanced training programs, awareness campaigns, and organizational support, to improve the adoption and practice of telehealth anesthesia in Rwanda.

Recommendations

At the end of this study, the following recommendations were framed:

- Enhance Training Programs: Develop and implement comprehensive training programs for anesthesia providers focusing on telehealth practices to address gaps in knowledge and improve practical skills.
- Develop Supportive Policies: Create and enforce policies that encourage the integration of telehealth into anesthesia practices, including guidelines and incentives for its adoption.
- Engage in Continuous Learning: Actively participate in training and professional development opportunities related to telehealth to stay updated with best practices and technological advancements.
- Advocate for Telehealth Benefits: Embrace and promote the benefits of telehealth within your professional environment to help reduce organizational resistance and increase overall adoption.

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